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IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for estimation of combustion chamber pressure of an internal combustion engine, <u>comprising</u>:

characterized by

modeling of the internal combustion engine with a plurality of model parameters in a model [[(1, 2)]] by providing a combustion chamber pressure value and a model alternating torque [[(MW)]], acquiring an actual alternating torque [[(IW)]] value,

adjusting [[(4, 5)]] the model alternating torque [[(MW)]] to the actual alternating torque [[(IW)]] by modifying the model parameters,

and determining an estimated value of the combustion chamber pressure in relation to the model [[(1, 2)]] on the basis of the modified model parameters.

- 2. (Currently Amended) The method as claimed in claim 1, wherein the <u>modeling model</u> (1,2) comprises <u>utilizing</u> a cycle model [[(1)]] for description of combustion in a combustion chamber, [[the]] <u>wherein</u> initial values <u>for the cycle model are</u> in particular being taken from an engine control unit.
- 3. (Currently Amended) The method as claimed in claim 1 [[or 2]], wherein the <u>modeling</u> model (1,2) comprises <u>utilizing</u> a mechanical model [[(2)]] for description of a spring-mass system of the internal combustion engine.
- 4. (Currently Amended) The method as claimed in one of claims claim 1 [[to 3]], wherein band limitation [[(3)]] is effected in order to acquire the model alternating torque [[(MW)]].
- 5. (Currently Amended) The method as claimed in one of claims claim 1 [[to 4]], wherein the adjusting adjustment (4, 5) is effected by error calculation [[(4)]] and reduction of the error [[(5)]] below an assigned limit value in a control circuit by means of the model parameters.

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- 6. (Currently Amended) The method as claimed in claims claim 1 [[to 5]], wherein the actual alternating torque [[(IW)]] is an estimated value of a moment estimation model.
- 7. (Currently Amended) A device for estimating combustion chamber pressure of an internal combustion engine, <u>comprising</u>:

characterized by-

a computer system for modeling of the internal combustion engine having a plurality of model parameters in a model [[(1, 2)]] by providing a combustion chamber pressure value and a model alternating torque [[(MW)]],

an acquisition system connected to the computer system for acquiring an actual alternating torque [[(IW)]], the model torque [[(MW)]] being subjected to adjustment to the actual alternating torque [[(IW)]] by the computer unit through modification of the model parameters and it being possible to determine an estimated value of the combustion chamber pressure in relation to the model [[(1, 2)]] on the basis of the modified model parameters.

- 8. (Currently Amended) The device as claimed in claim 7, wherein the model [[(1, 2)]] stored in the computer system comprises a cycle model [[(1)]] for description of combustion in a combustion chamber, it being possible to acquire initial values in particular from an engine control unit.
- 9. (Currently Amended) The device as claimed in claim 7 [[or 8]], wherein the model [[(1, 2)]] filed in the computer system comprises a mechanical model [[(2)]] for description of a spring-mass system of the internal combustion engine.
- 10. (Currently Amended) The device as claimed in one of claims claim 7 [[to 9]], such device further comprising a filter mechanism for band limitation [[(3)]] for the purpose of acquisition of the model alternating torque [[(MW)]] from a moment pattern.
- 11. (Currently Amended) The device as claimed in one of claims claim 7 [[to 10]], wherein adjustment of the model alternating torque [[(MW)]] by the actual alternating torque [[(IW)]]

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in the computer system may be effected by error calculation and reduction of an error below an assigned limit value in a control circuit by means of the model parameters.

12. (Currently Amended) The device as claimed in one of claims claim 7 [[to 11]], wherein the acquisition mechanism for acquisition of the actual alternating torque [[(IW)]] has an additional computer system for estimating the actual alternating torque [[(IW)]] from a measured value in relation to an angular velocity of the internal combustion engine.